

What is a time?

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This article is devoted to the problem of the time and its solution. *What is the time?*

People have been asking this question for a long time. Numerous books, articles and researches are devoted to this question and its possible solution. This question has been in the focus of many people. The time is here, there and everywhere. But what is the true sense of the time? What kind of secrets does the nature hide under the concept of the time? Is time real or has it been created by human mind? Is it possible to touch time? All such concepts as century, year, month, day, hour are the units to measure the time invented and used by people in their daily life. However a year and a day are not simply concepts, they are realities taken from the nature: for example the Earth turns around the Sun for one year and the Earth turns around itself for one day. The person intuitively, unconsciously reckons with the nature environment and takes the time units from the nature. Although the question ‘*What is the time?*’ remains. The time is something imperceptible. The time cannot be stopped. It is said that the time is god, but god does not exist and the question still remains. It is said that the time is something continuous, flowing as the water in the river. The time is something incomprehensible. It is supposed that each person perceives a time in his own way. It is possible to agree with it, but there is no answer on the basic question.

What is the time? The time is irreversible. The time as an arrow flies only forward from the past, through the present to the future. It is very right thought. The time as well as the space is one of the basic forms of the matter’s existence. It is also correct. Few people will object here. Thus, it may be concerned that the question on the time is added up to a question of a

matter. The matter is inconceivable without movement. The movement is an immanent property of a matter. There is no matter without movement and there is no movement without matter. It is quite right. The movement is the major attribute, a way of the existence of a matter. The movement of the usual bodies occurs in the space and in the time. Our ordinary consciousness imagines the space as the three-dimensional and the time as the one-dimensional essence. The idea of comparability of the time and some oscillatory, pulsing process taking place in the nature lies at the heart of the time measurement. And it should be the uniform, rhythmical process. It is possible to take any process in the nature as the standard of the definition for the time unit. The consciousness addresses to the material world in the search of the time's standard. The consciousness (idea) as a brain product (matter) correctly reflects the nature in one's own images and follows the nature, corresponds to the nature and studies it. The matter is the primary essence of the nature and the consciousness is the secondary one. The consciousness is the reflection of the material world, the nature and its laws. It is the position of the dialectic materialism. The consciousness is capable to create and operate not only the ideal images of the material world, but also to create own ideal abstractions.

Concerning the time it is possible to tell, what exactly in the nature should be a source of primary, oscillatory, pulsing process which is the standard of the natural time and it is necessary to search for it. It is clear that such process should be the material rhythmical process. Let's try to find this process in the nature. First, it should be the rhythmic movement of a matter. At once there are two questions 'What is a matter?', 'From whence and where a matter should move?' This is about the matter which is not an abstract theoretical category of the dialectic materialism. The matter here is a prototype in the nature for the philosophical category matter. This matter is the objective reality of the external world and the concrete natural matter. Such matter is a substance of nature. This concrete matter should move from the Singularity (outside the Universe) into the Universe. Only in this case, only in such understanding of the matter and its movement everything takes it place and finds the primordial

finished sense. The Singularity is a primary storehouse of the matter's finite quantity. In the Singularity the matter is in its primary condition, in the condition of pra-matter. It is still the condition of the matter that has not been learnt by people. In strictly rhythmical process this matter moves into the Universe from the Singularity, and forms its flesh.

Thus, the Universe is the matter's cosmologic object which can be called the tandem of the 'Singularity – Universe'. The Singularity may be quite probably the central core of the Universe which radiates the matter. The Universe extends with the matter radiation: this is the rhythmical expansion. This expansion happens with the speed of light. The matter radiates from the Singularity and moves into the Universe in the form of the small discrete matter's globule, which let us name the atom of the matter. Each matter's atom contains the quiet defined existing in the nature minimum quantity of the matter. We will name this minimum quantity of the matter the elementary unit of the matter. The matter (pra-matter) in the Singularity represents a comprehensive whole. The matter in the Universe is presented by the discrete atoms of the matter. The atoms of the matter are the flesh of the Universe. Each matter's atom is the basis of the nature. Also each matter's atom is the basis for fundamental particle. So, we have found the primary natural rhythmical process connected with the movement and even with the formation of the matter in the Universe. There is the natural rhythmical process of the transference of the matter from the Singularity into the Universe in the form of the matter's atom.

Thus, it is possible to speak about the rhythm of the nature. The rhythm of the nature is the primary essence for the concept of the universal time. All in the nature within our Universe is subordinated to this rhythm of the nature: it is the nature law. In this nature's rhythm the primary movement of the matter from the Singularity into the Universe is carried out, it is the first basic form of the matter's motion. The matter underlies the nature. The matter lies at the heart of all things and phenomena of the nature. The natural time is strong and inseparably connected with this rhythm of the nature, with this uniform rhythmical motion of the matter.

The time is measured by steps of the nature's rhythm, this is dimensionless time. The limitation of the quantity of the matter in the Singularity means that the Universe has the beginning and will have the finish of the own evolution. All in our world finally originates in the Singularity. Our world begins with the Singularity.

There was '*time*' when the Universe did not exist and there was only one Singularity. The Universe's natural time has appeared simultaneously with the original formation of the Universe. Such time is absolute. The original formation of the Universe is connected with the formation and the receipt of the first atom of the matter. It also means that the matter is the primary essence and the time is the secondary one. The time is measured by the rhythm of the nature and it is the dimensionless. The duration of the time (for one step of the nature's rhythm) is measured by the quantity of the matter in the matter's atom (the elementary unit of the matter). It is the elementary unit of the natural time and it is already the dimensional time. Its dimension will be defined by the dimension of the matter.

It is possible to write down it in the short form as the identity: **time** \equiv **matter**. It is a principle of life at the micro level: it is the nature law. The Universe and all of us live in this rhythm of the nature. All in the world is subordinated to this rhythm. This rhythm of the nature and connected with it the primary motion of the matter underlie the concept of the time. Here are the essence and the sense of our Universe's time. *What is the time?* Now we know the correct answer to this old eternal question. The matter is the unique basis of all in the nature.

Let's result in the conclusion an aforesaid summary. First let's imagine that our Universe has the center. Let in the Universe center is a material (from a word 'matter') core. The Universe core consists of the 'pure' matter. Let's name Singularity the Universe core. We will assume that this matter's core radiates into the Universe 'pure' matter in the form of elementary particles of a matter, we name their atoms of a matter. It is possible to consider that the Singularity represents generator of the atoms of the matter. It is possible to consider that the Singularity represents matter's harmonious oscillator. Its frequency sets, defines a natural

rhythm of the nature. One step of a rhythm of the nature defines elementary unit of connatural universal time. It will be the dimensionless time. In each step of a rhythm of the nature in the Universe one atom of the matter is radiated. Each atom of a matter contains the same, quite certain quantity of a 'pure' matter. If this quantity of a matter to put in conformity of time duration we will define unit of dimensional connatural universal time. Dimension of this time duration will coincide with dimension of a matter. Now we know what is the matter? Now we know what is the Universe? Now we know what is the Singularity? Now we know what is the time? The author expresses gratitude to grandson Maksim for useful walks in the open air where it was well thought of the nature.